

CONTRACT PLANS

SEG 2B NOISE WALLS

NOISE WALL 6

I-405 MP 10.62 TO MP 10.82

I-405; RENTON TO BELLEVUE WIDENING
AND EXPRESS TOLL LANES PROJECT

VOLUME 8

WSDOT RFC

KING COUNTY

		Date
Originated By:	MGH	1/4/22
Checked By:	WPM	1/4/2022
Backchecked By:	NA	NA
Corrected By:	NA	NA
Verified By:	NA	NA



Washington State
Department of Transportation

1/5/2022

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SR I-405 FILE NO. SHEET





GENERAL NOTES




1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION", ENGLISH UNITS, DATED 2018 AND AMENDED JANUARY 7, 2019.
2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS", EIGHTH EDITION 2017. USING WIND DESIGN EXPOSURE CATEGORY B AND SEISMIC DESIGN CATEGORY D, SITE CLASS D, AND THE FOLLOWING ACCELERATION PARAMETERS:




PARAMETER	SAFETY EVALUATION EARTHQUAKE (SEE)	FUNCTIONAL EVALUATION EARTHQUAKE (FEE)
PEAK GROUND ACCELERATION, PGA	0.422	0.198
SITE-ADJUSTED PEAK GROUND ACCELERATION, As	0.497	0.278
0.2 SEC SPECTRAL ACCELERATION, Ss	0.959	0.447
1.0 SEC SPECTRAL ACCELERATION, S1	0.278	0.108

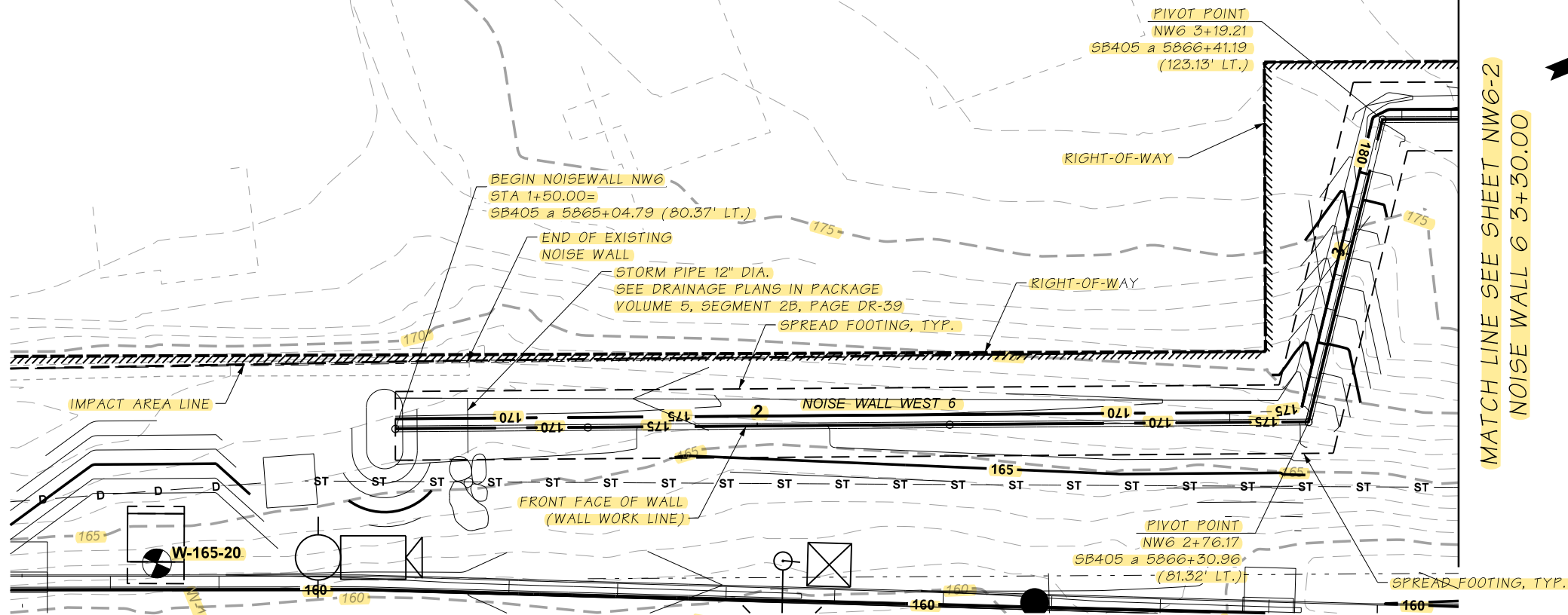
3. THIS STRUCTURE HAS BEEN DESIGNED WITH GEOTECHNICAL ENGINEERING REPORT: SOLDIER PILE WALL 10.35L AND NOISE WALL 6.
4. THE CONCRETE FOR THE NOISE WALLS SHALL BE CLASS 4000.
5. UNLESS OTHERWISE SHOWN ON THE PLANS, CONCRETE COVER MEASURED FROM FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCEMENT STEEL SHALL BE 3 INCHES AT THE BOTTOM OF THE FOOTINGS AND 2 INCHES AT ALL OTHER LOCATIONS.
6. THE LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE VICINITY OF THE STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO EXCAVATING.
7. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4", UNLESS NOTED OTHERWISE.
8. REINFORCING BARS SHALL CONFORM TO ASTM A706 GRADE 60 UNLESS OTHERWISE NOTED.
9. THE FOLLOWING NOTES ARE FROM THE GEOTECHNICAL ENGINEERING REPORT: SOLDIER PILE WALL 10.35L AND NOISE WALL 6:
- NOISE WALL 6 AND THE CONCRETE PROTECTION FENCE FOUNDATION CONSTRUCTION SHALL HAVE SPECIAL INSPECTION BY A GSI TO VERIFY THAT FOUNDATION BEARING SOILS ARE SUITABLE FOR SUPPORT OF FOUNDATIONS BASED ON THE TYPES OF SOILS FOR WHICH DESIGN RECOMMENDATIONS ARE MADE.
- THE EXPOSED SOILS SHALL BE OBSERVED BY A DESIGNATED REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER FOR UNIFORMITY AND CONSISTENCY WITH CONDITIONS ASSUMED FOR DESIGN. A T-PROBE WILL BE USED TO EVALUATE THE FOOTING SUBGRADE. IF, IN THE OPINION OF THE GEOTECHNICAL ENGINEER, CONDITIONS ARE WORSE THAN INDICATED BY THE BORINGS USED FOR DESIGN, EITHER THE DESIGN OR THE SITE PREPARATION WILL BE MODIFIED, DEPENDING ON THE LEVEL OF THE VARIANCE. RESULTS OF THE OBSERVATIONS AND BEARING SURFACE PROBING WILL BE SUMMARIZED IN A DAILY FIELD REPORT.

LEGEND

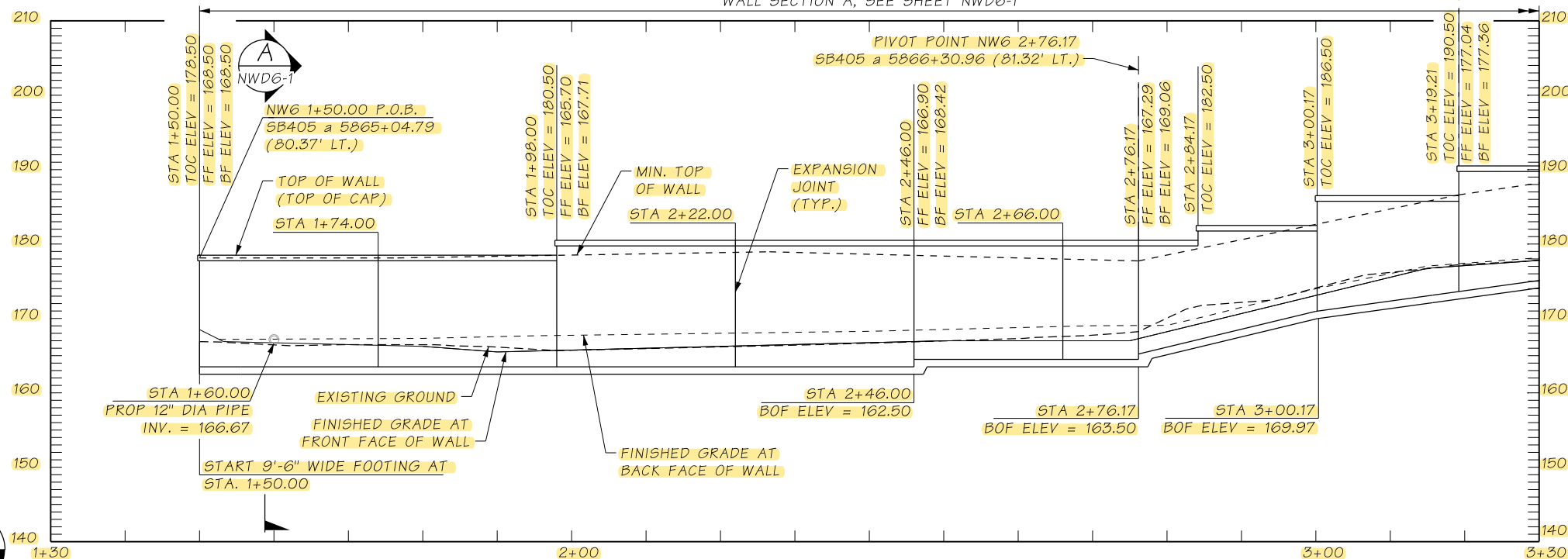
-  SOIL BORING
-  ROCK QUARRY SPALLS
-  DITCH LINE
- OP - - OVERHEAD POWER - EXISTING
-  RIGHT OF WAY
- ST - - STORM SEWER - EXISTING
- ST - - STORM SEWER - PROPOSED

-  IDENTIFIES SECTION, VIEW OR DETAIL
-  TAKEN OR SHOWN ON PLAN REF. NO. NWD-2
-  TAKEN OR SHOWN ON THE SAME SHEET

\\AMECPW03\ICS01\iCS_pdf_work_dir\7654\9335_425\XL5467_PP_NW6-0.dgn												DATE		E.O.R. 1 STAMP BOX		DATE		E.O.R. 2 STAMP BOX		 Washington State Department of Transportation		 wood.		I-405; RENTON TO BELLEVUE WIDENING AND EXPRESS TOLL LANES PROJECT		PLAN REF. NO. NW6-0	
SHEET																											
OF																											
SHEETS																											
Design Mgr: BRIAN BELL		RELEASE FOR CONSTRUCTION RECORD				REGION NO. STATE		FED. AID, PROJ. NO.		SHEET NO. TOTAL SHEETS																	
Designed By: BRIAN DURKIN						10 WASH.																					
Checked By: MICHAEL HARDING																											
Detailed By: RICHARD KAPUNGU								JOB NUMBER																			
Current Revision By: MICHAEL HARDING								XL5467																			
Date: 1/6/2022		RELEASED FOR CONSTRUCTION				01/05/2022 0		CONTRACT NO.																			
Time: 5:59:45 PM		DESCRIPTION				DATE NO		C9242																			



PLAN - NOISE WALL WEST 6
WALL SECTION A, SEE SHEET NWD6-1



ELEVATION - NOISE WALL WEST 6

NOTES:

1. USE 1/2" PREMOLDED JOINT FILLER IN EXPANSION JOINTS @ 24'-0" CENTERS MAX.
2. TOP OF WALL IS THE TOP OF THE PRECAST CAP, SEE DETAIL ON SHEET NWD6-3
3. SEE DRAINAGE PLANS FOR DRAINAGE INFORMATION.
4. SEE NWD SHEETS FOR NOISE WALL DETAILS.
5. EXISTING UTILITY LOCATION AND ELEVATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. WALL FINISH AND PIGMENTED SEALER SHALL EXTEND TO ONE FOOT BELOW FINISHED GROUND PER STD SPEC 6-02.3(14)C.
7. WALL FINISH SHALL BE FRACTURED FIN ON THE CORRIDOR SIDE AND ASHLAR STONE BLOCK ON THE COMMUNITY SIDE. THE CAP SHALL HAVE A SMOOTH FINISH.
8. WALL SHALL BE WSDOT STANDARD COLOR MT. ST. HELENS GRAY. THE CAP SHALL BE WSDOT STANDARD COLOR MT. BAKER GRAY.
9. SMOOTH FINISH BAND AT EXPANSION JOINTS ON BOTH SIDES OF THE WALL AND PAINTED MT. BAKER GRAY. SEE DETAIL ON NWD6-4.

ABBREVIATIONS:

- BF ELEV GROUND AT BACK FACE OF WALL
BOF BOTTOM OF FOOTING
ELEV ELEVATION
FF ELEV GROUND AT FRONT FACE OF WALL
TOC TOP OF CAP

WALL TYPE: CAST-IN-PLACE CONCRETE NOISE WALL



(NAVD) 88

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Design Mgr:	BRIAN BELL	RELEASE FOR CONSTRUCTION RECORD	REGION NO.	STATE	FED. AID, PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By:	BRIAN DURKIN		10	WASH.			
Checked By:	MICHAEL HARDING			JOB NUMBER			
Detailed By:	RICHARD KAPUNGU			XL5467			
Current Revision By:	MICHAEL HARDING			CONTRACT NO.			
Date:	1/6/2022	RELEASED FOR CONSTRUCTION	01/05/2022	0	C9242		
Time:	6:00:03 PM	DESCRIPTION	DATE	NO			



DATE

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Department of Transportation

FLATIRON LANE

wood.

I-405; RENTON TO BELLEVUE WIDENING
AND EXPRESS TOLL LANES PROJECT

PLAN REF. NO.

NW6-1

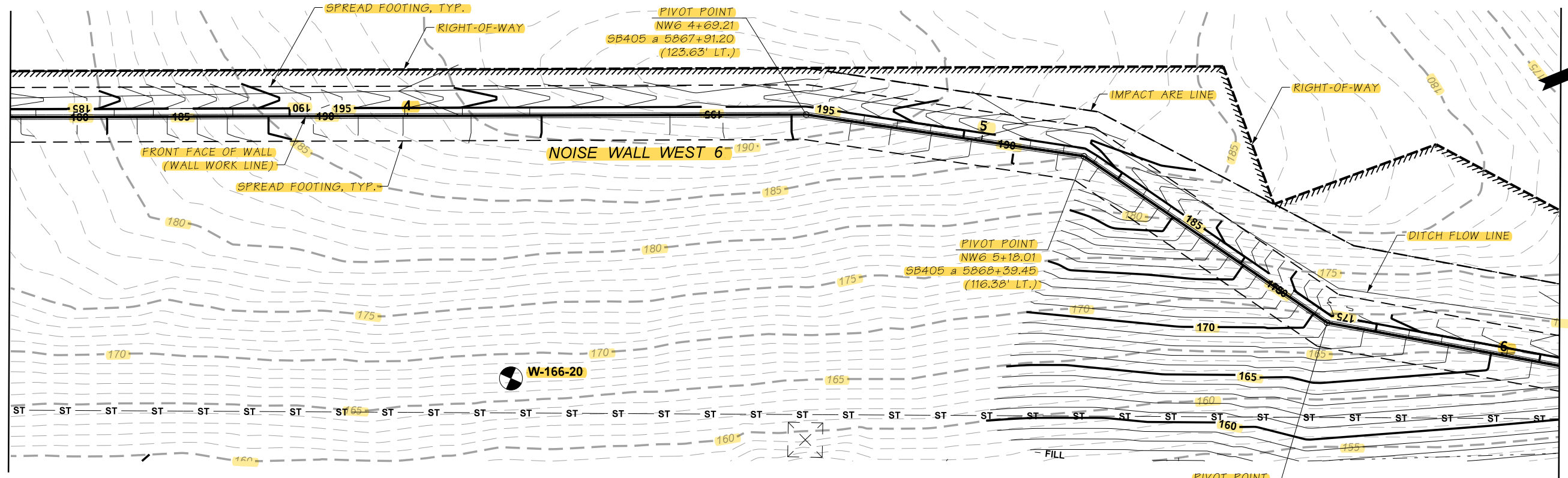
SHEET

OF

SHEETS

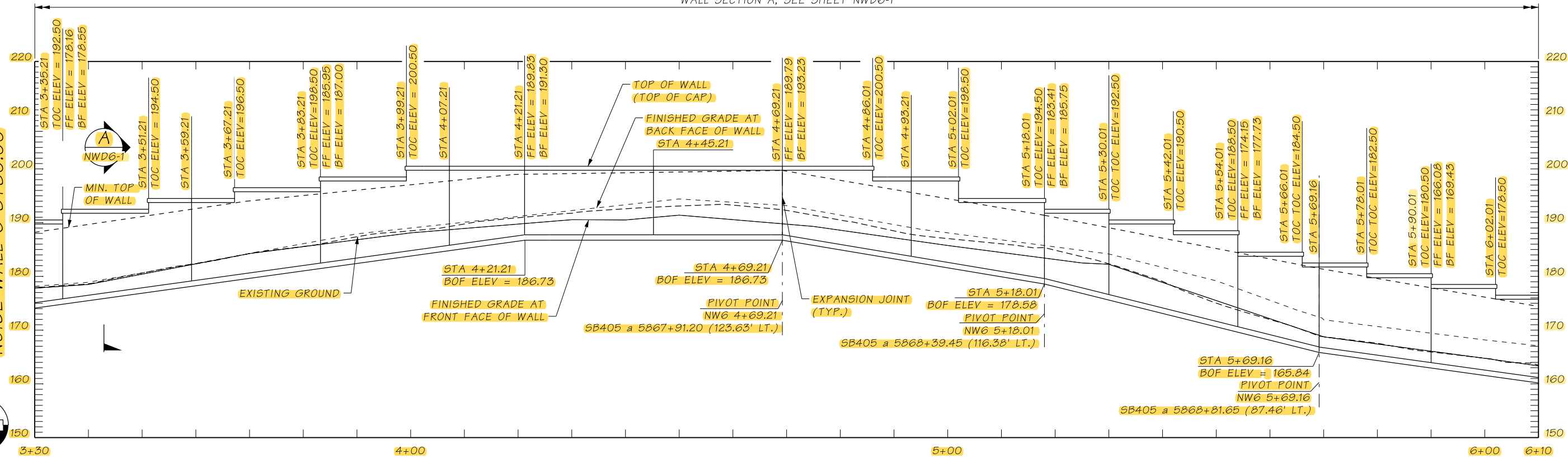
NOISE WALL PLAN AND PROFILE
NOISE WALL 6 (1 OF 5)

MATCH LINE SEE SHEET NW6-1
NOISE WALL 6 3+30.00



MATCH LINE SEE SHEET NW6-3
NOISE WALL 6 6+10.00

MATCH LINE SEE SHEET NW6-1
NOISE WALL 6 3+30.00



MATCH LINE SEE SHEET NW6-3
NOISE WALL 6 6+10.00

SR 1405 FILE NO. SHEET

(NAVD) 88

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Designed By:	BRIAN DURKIN		10	WASH.			
Checked By:	MICHAEL HARDING				JOB NUMBER		
Detailed By:	RICHARD KAPUNGU				XL5467		
Current Revision By:	MICHAEL HARDING				CONTRACT NO.		
Date:	1/6/2022	RELEASED FOR CONSTRUCTION	01/05/2022	0	C9242		
Time:	6:00:02 PM	DESCRIPTION	DATE	NO			



DATE

E.O.R. 2 STAMP BOX



Washington State
Department of Transportation

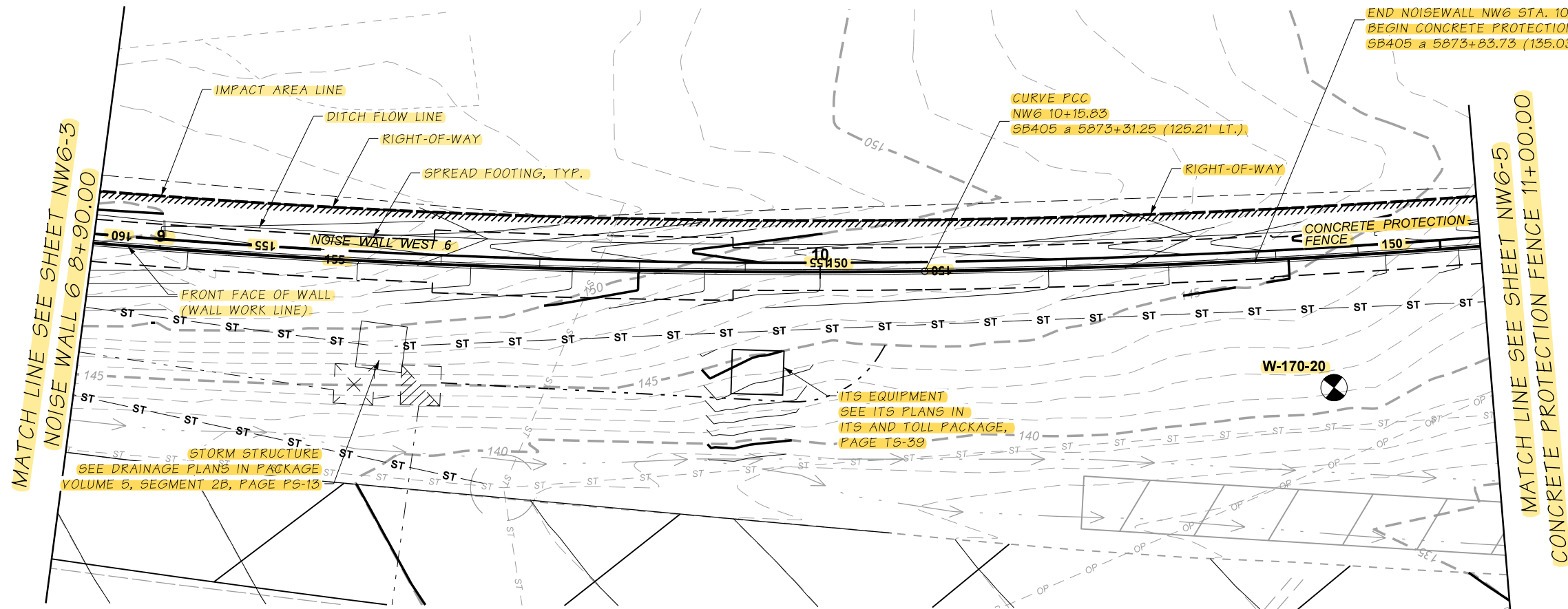
FLATIRON LANE

wood.

I-405; RENTON TO BELLEVUE WIDENING
AND EXPRESS TOLL LANES PROJECT

NOISE WALL PLAN AND PROFILE
NOISE WALL 6 (2 OF 5)

PLAN REF. NO.
NW6-2
SHEET
OF
SHEETS



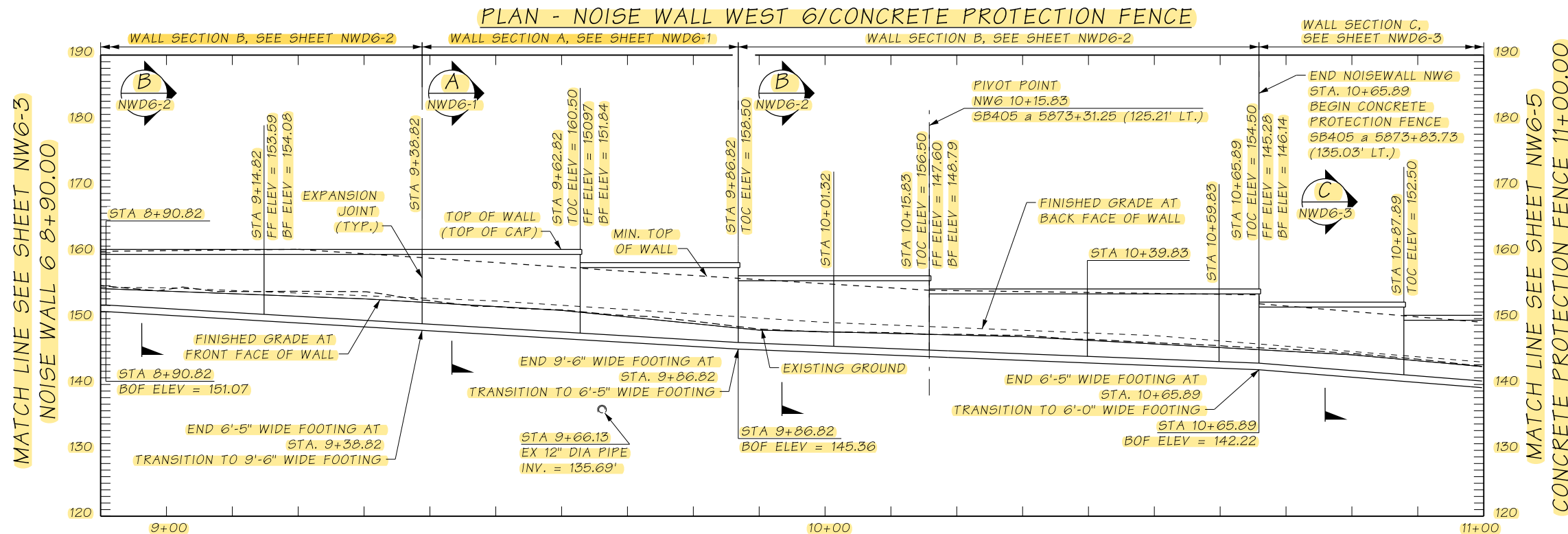
NOTES:

1. SEE SHEET NW6-1 FOR NOTES.

NW 6 CURVE DATA:

PCC STA 7+94.82
PCC STA 10+15.83
RADIUS = 1332.38'

PCC STA 10+15.83
PCC STA 12+00.35
RADIUS = 1332.38'



(NAVD) 88

SK 1405 FILE NO. SHEET

\\AMECPW03\ICS01\iCS_pdf_work_dir\7654\9335_5\XL5467_PP_NW6-4.dgn				REGION NO.	STATE	FED. AID, PROJ. NO.	SHEET NO.	TOTAL SHEETS
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Designed By:	BRIAN DURKIN							
Checked By:	RICHARD KAPUNGU				JOB NUMBER			
Detailed By:	RICHARD KAPUNGU				XL5467			
Current Revision By:	MICHAEL HARDING				CONTRACT NO.			
Date:	1/6/2022	RELEASED FOR CONSTRUCTION	01/05/2022	0	C9242			
Time:	6:00:10 PM	DESCRIPTION	DATE	NO				



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Department of Transportation

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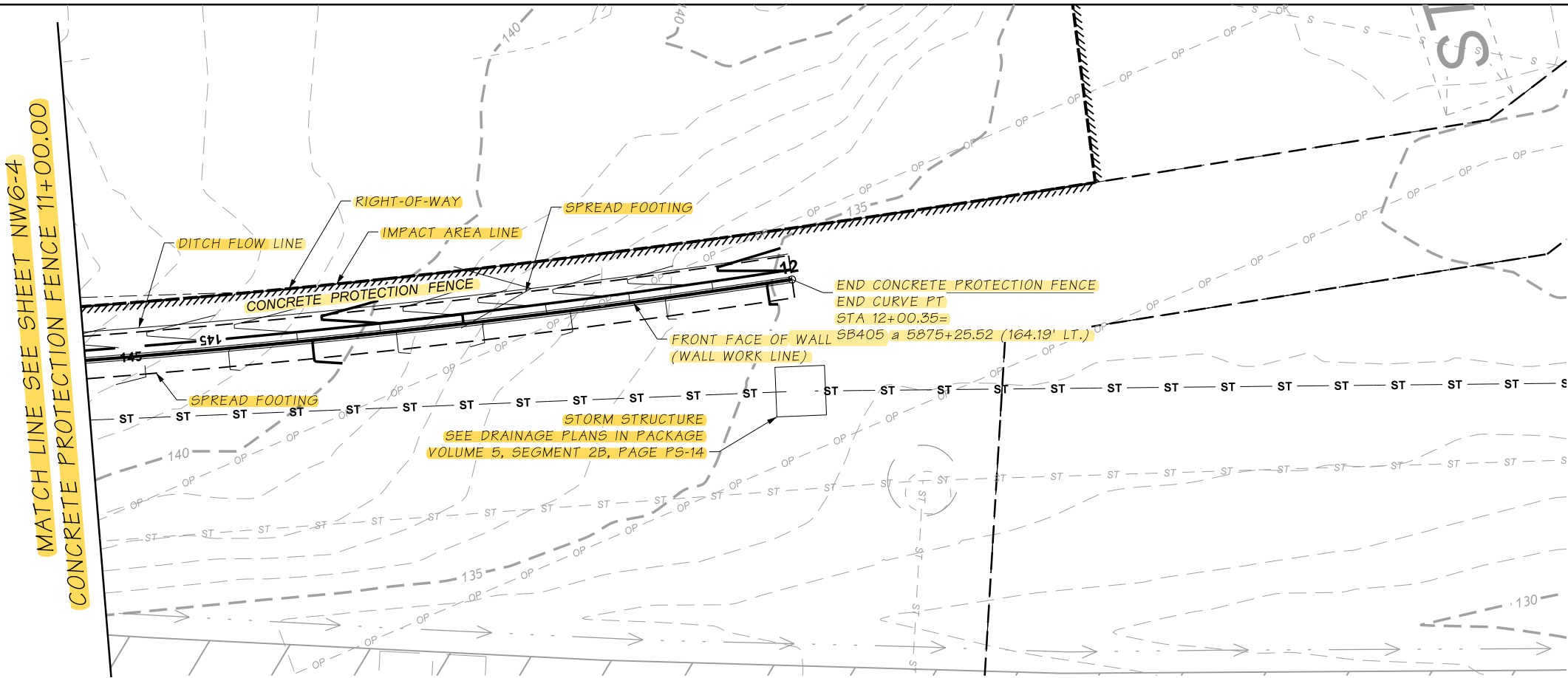
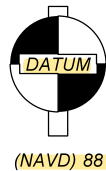
I-405; RENTON TO BELLEVUE WIDENING
AND EXPRESS TOLL LANES PROJECT

NOISE WALL PLAN AND PROFILE
NOISE WALL 6 (4 OF 5)

PLAN REF. NO.
NW6-4
SHEET
OF
SHEETS

WALL TYPE: CAST-IN-PLACE NOISE WALL

SR 1405 FILE NO. SHEET



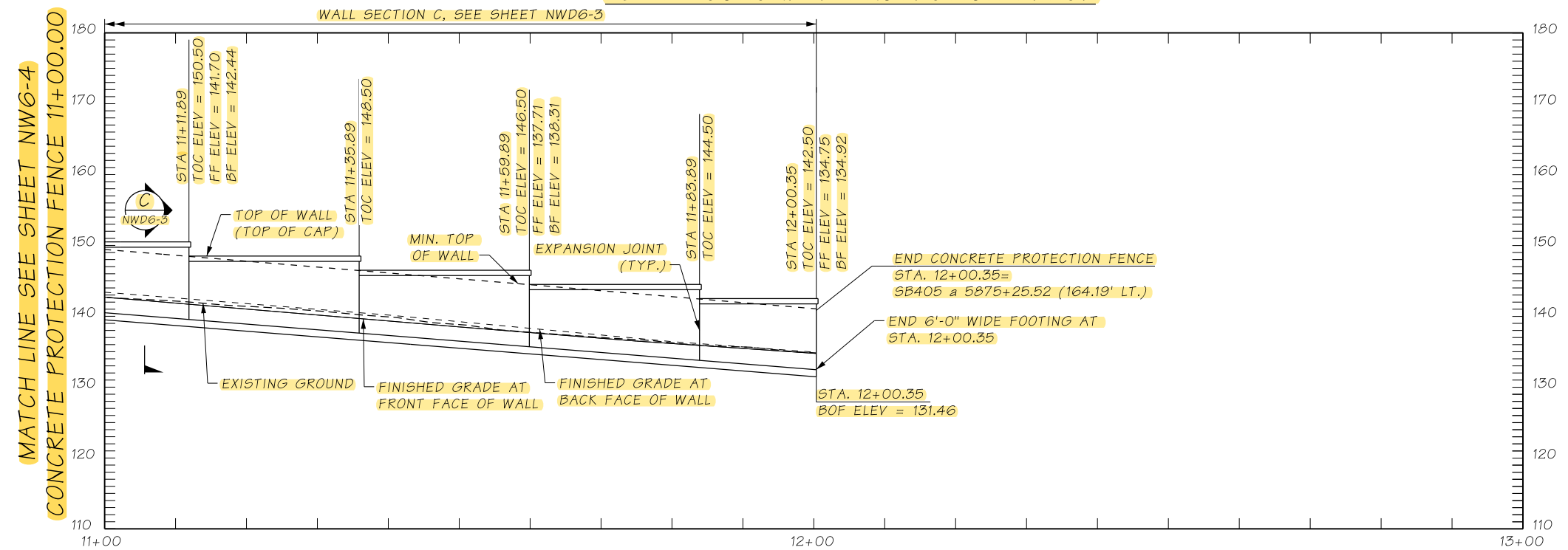
NOTES:

1. SEE SHEET NW6-1 FOR NOTES.

NW6 CURVE DATA:

PCC STA 7+94.82
PT STA 10+15.83
RADIUS = 1332.38'

PCC STA 10+15.83
PT STA 12+00.35
RADIUS = 1332.38'



WALL TYPE: CAST-IN-PLACE NOISE WALL

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Design Mgr:	BRIAN BELL	RELEASE FOR CONSTRUCTION RECORD	REGION NO.	STATE	FED. AID, PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By:	BRIAN DURKIN		10	WASH.			
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I-405; RENTON TO BELLEVUE WIDENING
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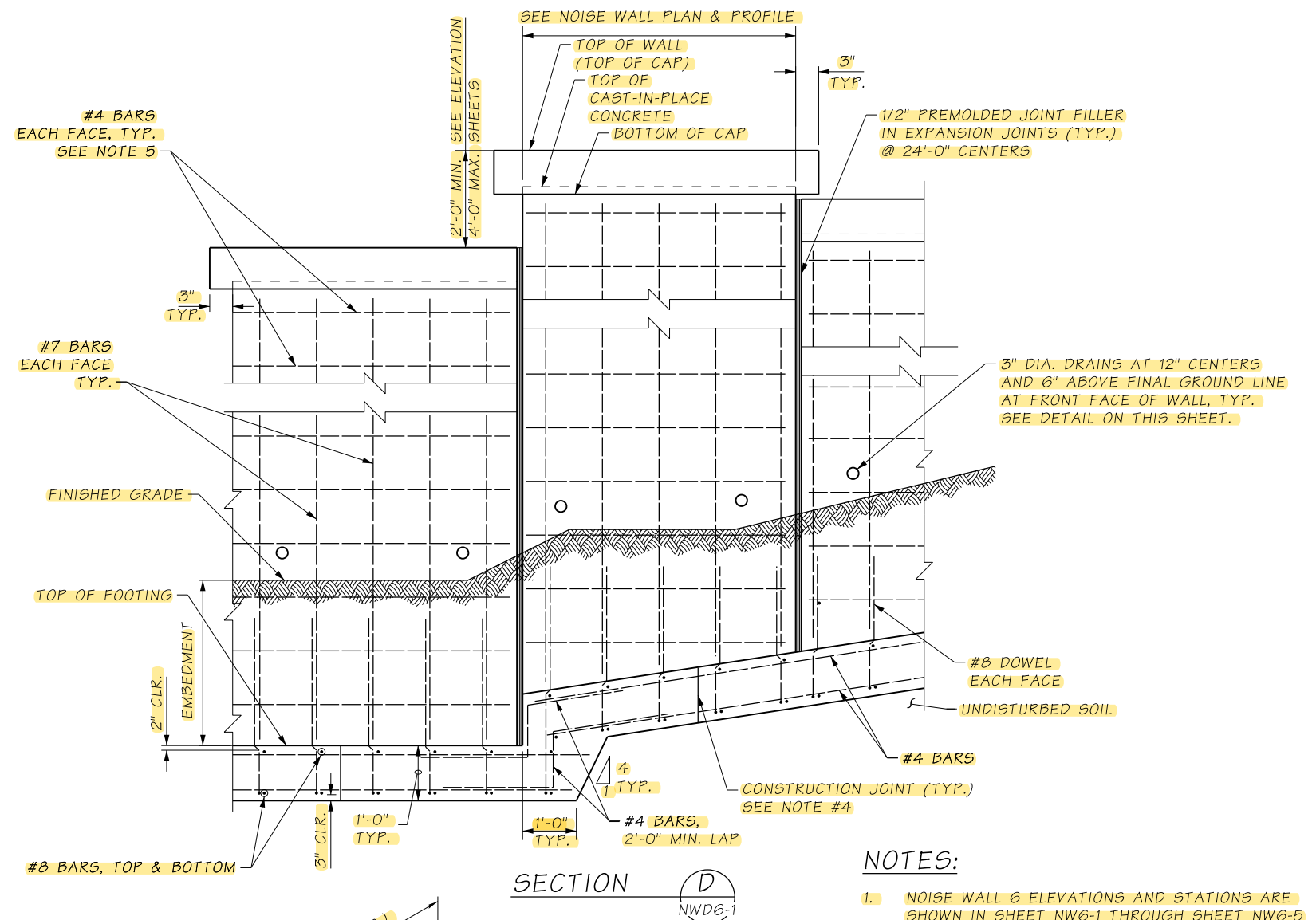
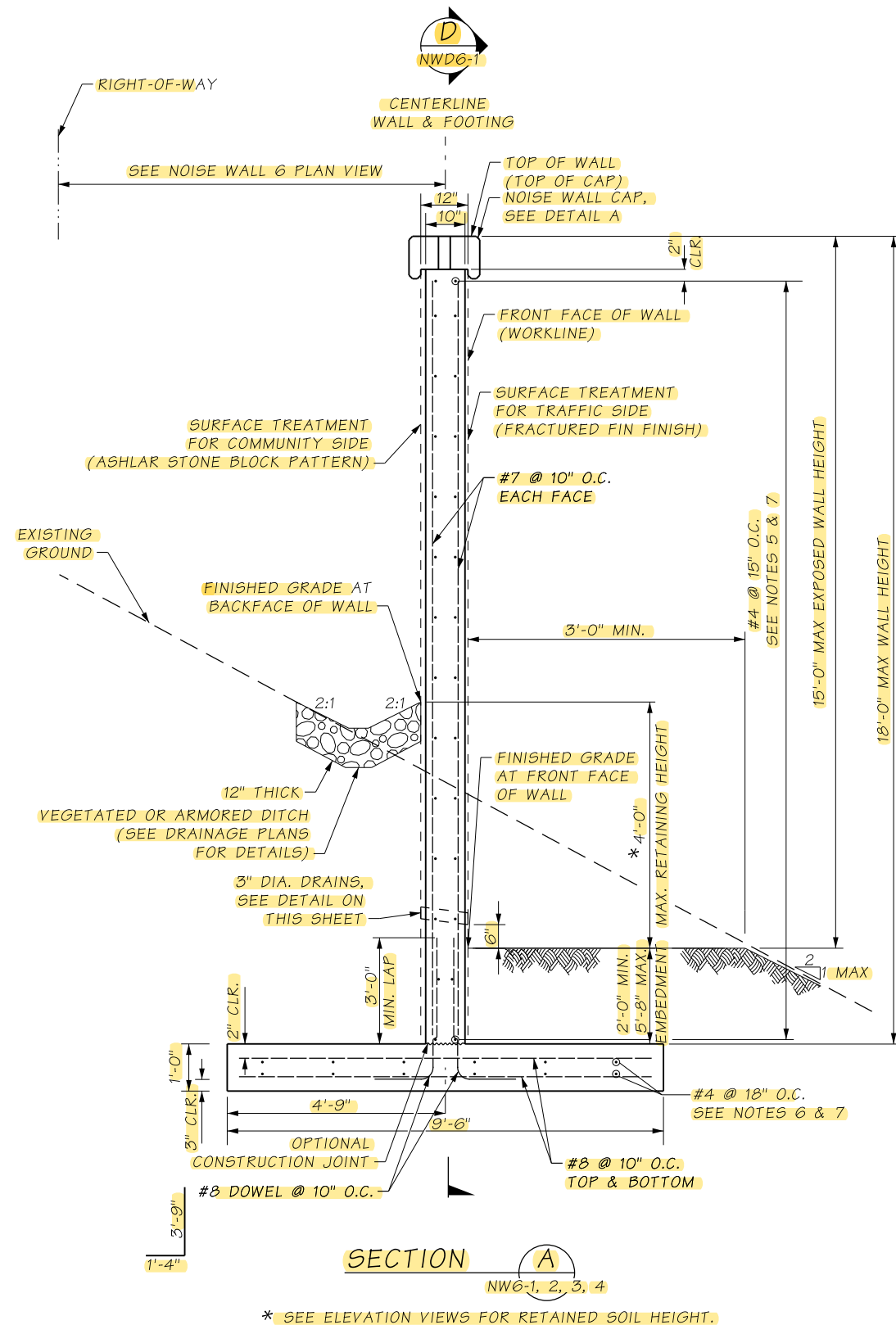
NW6-5

SHEET

OF

SHEETS

NOISE WALL PLAN AND PROFILE
NOISE WALL 6 (5 OF 5)



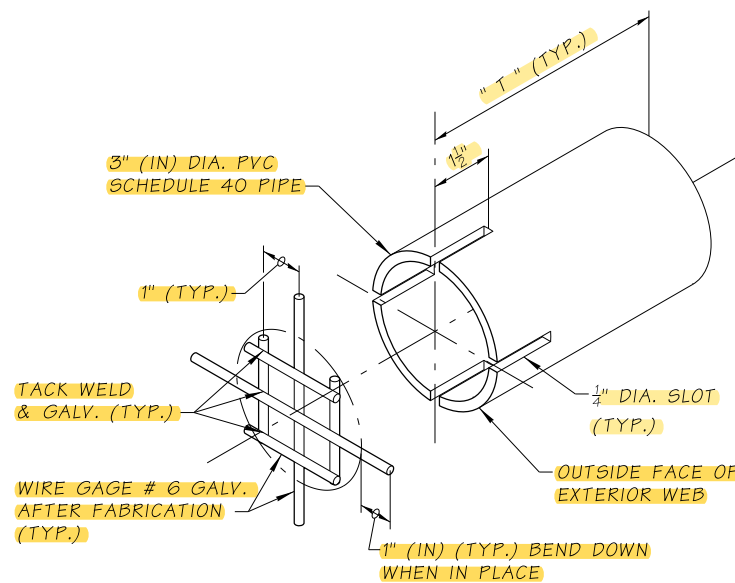
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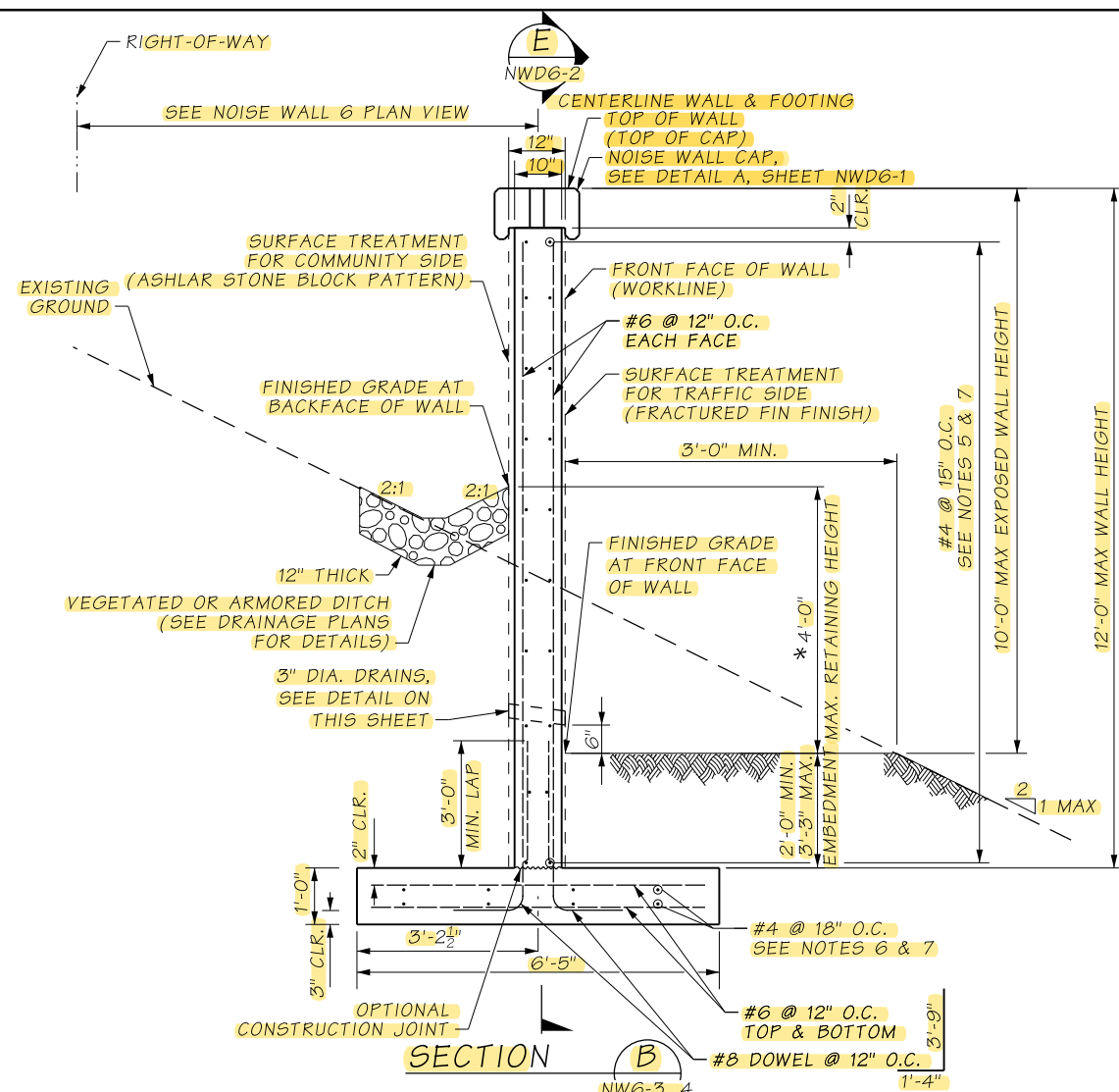
1. NOISE WALL 6 ELEVATIONS AND STATIONS ARE SHOWN IN SHEET NW6-1 THROUGH SHEET NW6-5
2. ALL CONCRETE SHALL BE CL 4000, EXCEPT AS NOTED.
3. ALL BARS SHOWN ON THIS SHEET SHALL BE EITHER AASHTO M31 GRADE 60 OR ASTM GRADE 60.
4. CONSTRUCTION JOINTS IN THE FOOTING SHALL BE SPACED AT 120 FEET MAXIMUM.
5. AT WALL PIVOT POINTS, BEND BARS OR LAP LONGITUDINAL REINFORCING BARS, 2'-0" MIN.
6. REINFORCEMENT BARS SHALL EXTEND THRU CONSTRUCTION JOINTS.
7. SEE THE FOLLOWING TABLE FOR REINFORCEMENT BAR SPLICE LENGTH.

BAR SIZE	SPLICE LENGTH
#4	2'-0"

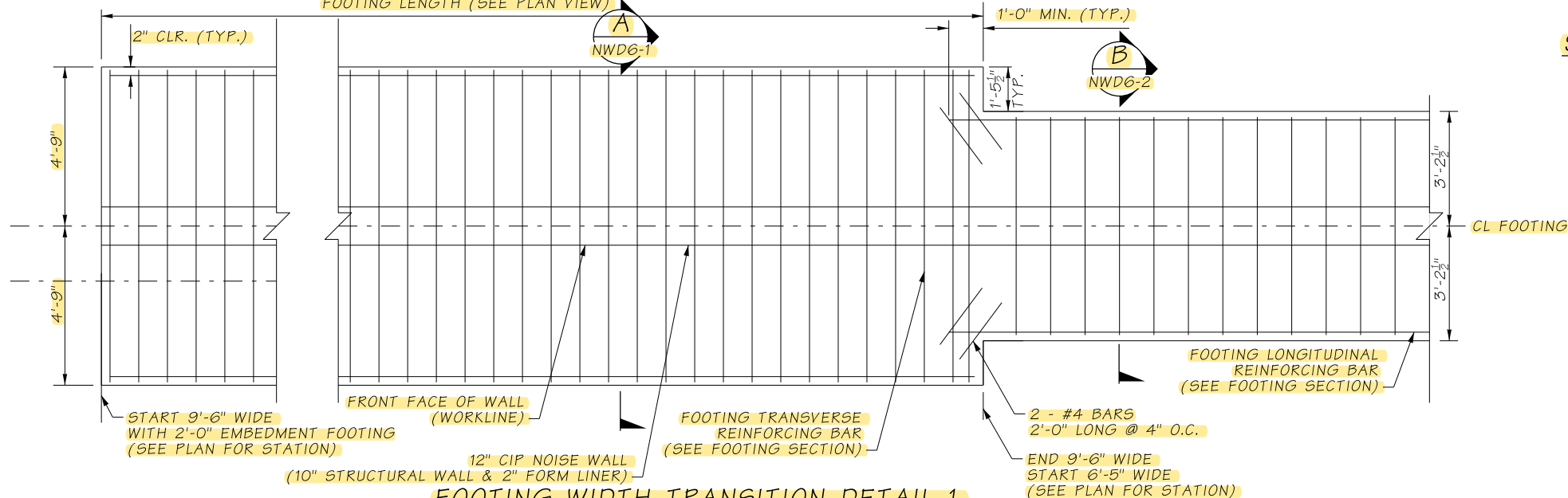
DETAIL - 3" DIA. DRAIN

"T" = WALL THICKNESS

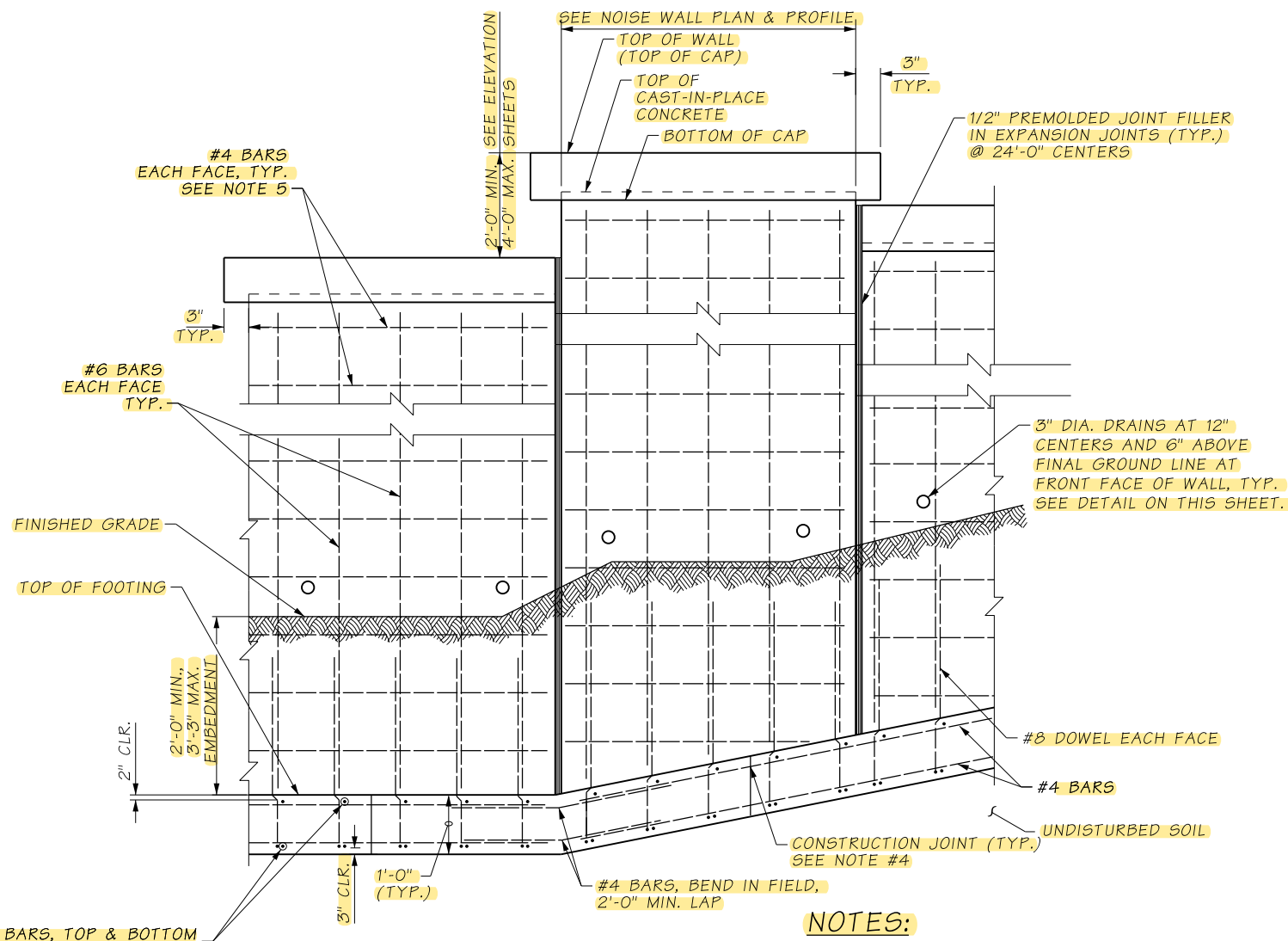




* SEE ELEVATION VIEWS FOR RETAINED SOIL HEIGHT.
FOOTING LENGTH (SEE PLAN VIEW)



FOOTING WIDTH TRANSITION DETAIL 1



NOTES:

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- ALL BARS SHOWN ON THIS SHEET SHALL BE EITHER AASHTO M31 GRADE 60 OR ASTM GRADE 60.
- CONSTRUCTION JOINTS IN THE FOOTING SHALL BE SPACED AT 120 FEET MAXIMUM.
- AT WALL CORNERS, LAP LONGITUDINAL REINFORCING BARS, 2'-0" MIN.
- REINFORCEMENT BARS SHALL EXTEND THRU CONSTRUCTION JOINTS.
- SEE THE FOLLOWING TABLE FOR REINFORCEMENT BAR SPICE LENGTH.

BAR SIZE	SPLICE LENGTH
#4	2'-0"

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Design Mgr:	BRIAN BELL	RELEASE FOR CONSTRUCTION RECORD	REGION NO.	STATE	FED. AID, PROJ. NO.	SHEET NO.	TOTAL SHEETS
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Checked By:	BRIAN DURKIN						
Detailed By:	RICHARD KAPUNGU						
Current Revision By:	MICHAEL HARDING						
Date:	1/4/2022	RELEASED FOR CONSTRUCTION	01/05/2022	0	CONTRACT NO.		
Time:	1:58:44 PM	DESCRIPTION	DATE	NO	C9242		

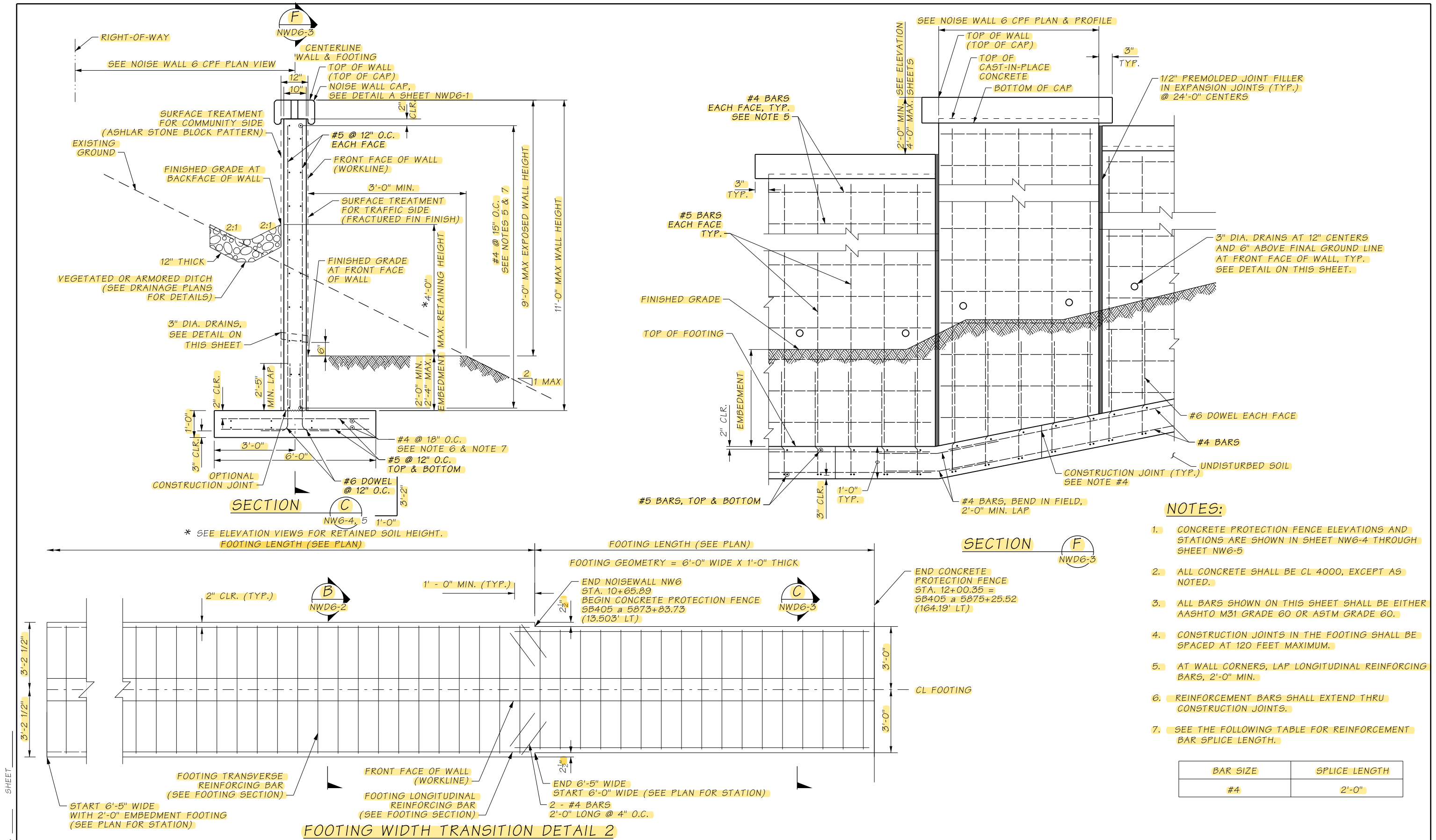


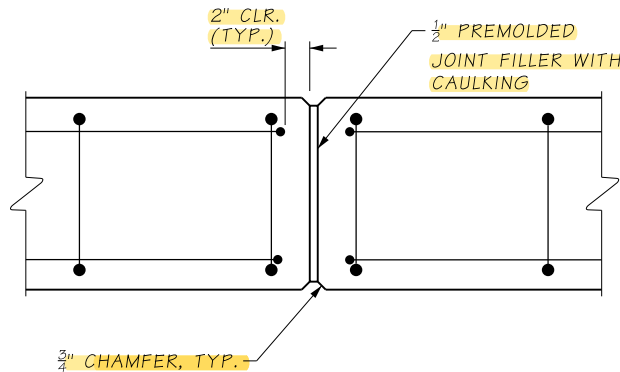
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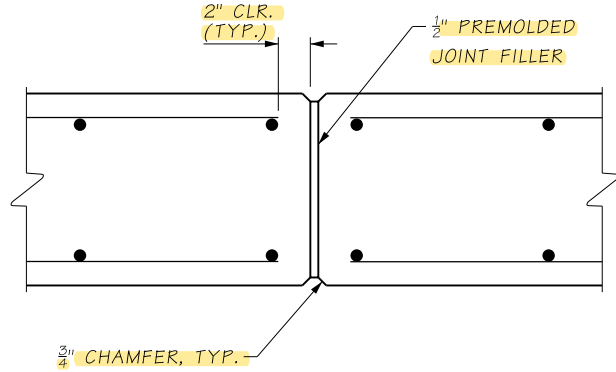
I-405; RENTON TO BELLEVUE WIDENING AND EXPRESS TOLL LANES PROJECT
NOISE WALL DETAILS
NOISE WALL WEST 6

PLAN REF. NO.
NWD6-2
SHEET
OF
SHEETS

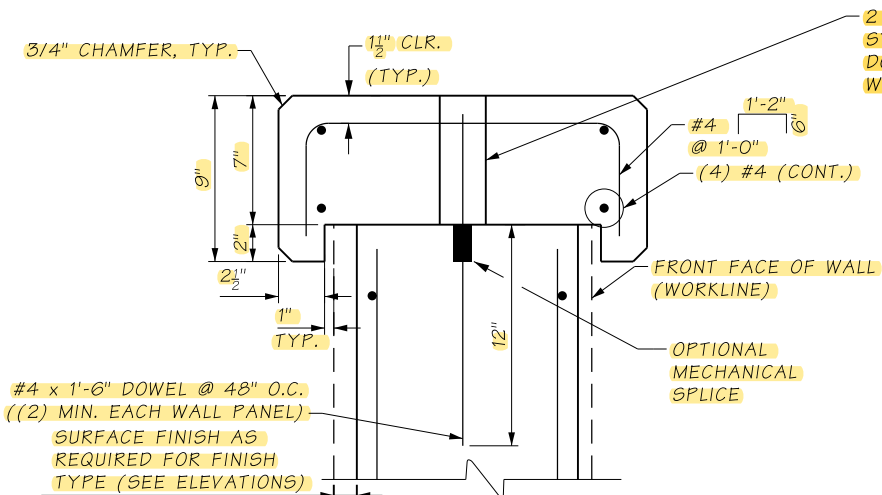




WALL CAP EXPANSION JOINT TYPICAL DETAIL



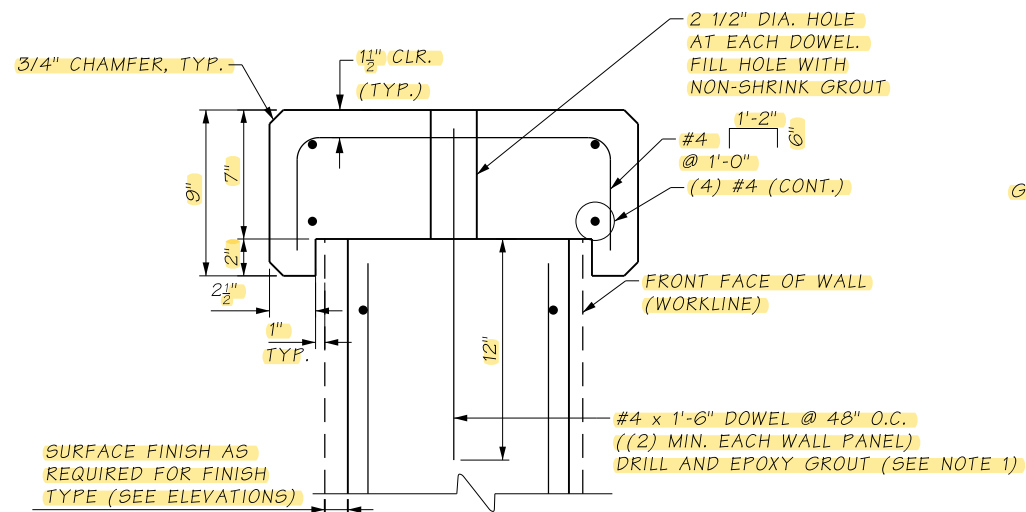
WALL EXPANSION JOINT TYPICAL DETAIL



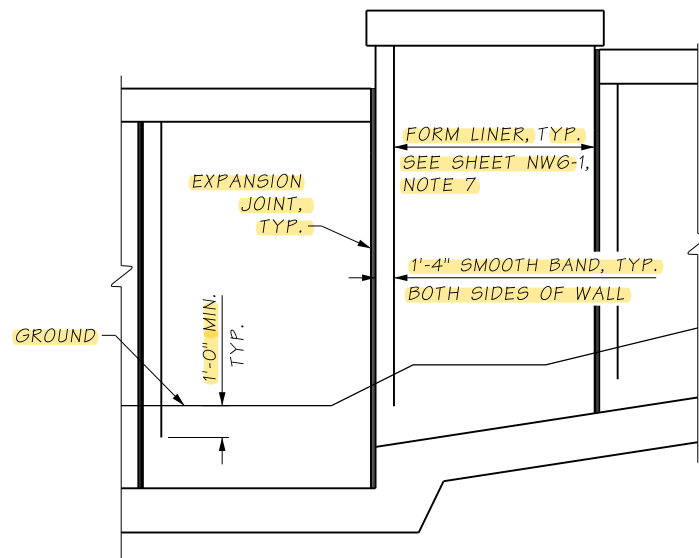
DETAIL A - ALTERNATIVE 1: PRECAST CAP

NOTES:

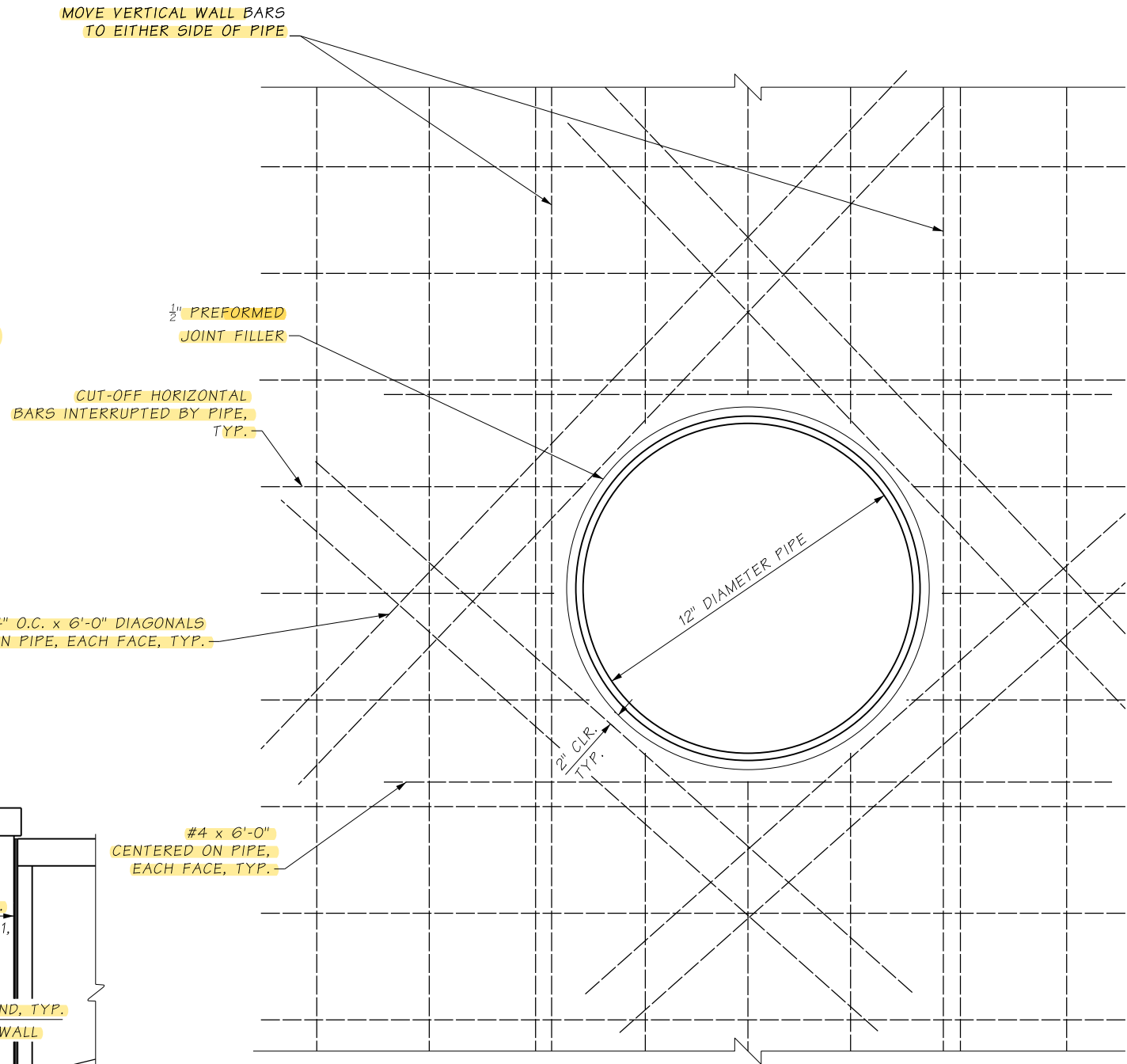
1. EPOXY GROUT SHALL BE WSDOT TYPE 2.



DETAIL A - ALTERNATIVE 2: PRECAST CAP



ELEVATION VIEW
WALL SURFACE TEXTURE
ARCHITECTURAL TREATMENT



DETAIL - PIPE PENETRATION AT WALL

NOTE: LOCATED AT STA 1+60.00 (SHEET NW6-1)
AND STA 8+25.43 (SHEET NW6-3).

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I-405; RENTON TO BELLEVUE WIDENING
AND EXPRESS TOLL LANES PROJECT

NOISE WALL DETAILS
NOISE WALL WEST 6

PLAN REF. NO.

NWD6-4

SHEET

OF

SHEETS